

580J* (D,F)**
SINGLE PACKAGE ROOFTOP
GAS HEATING/ELECTRIC COOLING UNIT
TWO STAGE COOLING CAPACITY CONTROL WITH NOVATION™ COIL
SIZES 08, 12, 14 WITH PURON® (R-410A) REFRIGERANT



Submittal Data



This product has been designed and manufactured to meet Energy Star® criteria for energy efficiency. However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency. Installation of this product should follow all manufacturer's refrigerant charging and air flow instructions. **Failure to confirm proper charge and air flow may reduce energy efficiency and shorten equipment life.**

DESCRIPTION

580J*** (D,F) units are high-efficiency, single-packaged electric cooling, gas heating units that are pre-wired and pre-charged with Puron® (R-410A) HFC refrigerant. Units utilize an all aluminum flat micro-channel tube with louvered fins condenser coil—NOVATION™. The units are factory tested in both heating and cooling modes. These units meet the ASHRAE 90.1-2007 and Energy Star minimum efficiency levels as well as also meeting 2010 efficiency standards.

STANDARD FEATURES

Base Unit

- Puron (R-410A) HFC refrigerant
- ARI certified efficiency levels up to 11.1 EER
- Rated in accordance with ARI Standard 360
- Designed in accordance with Underwriters' Laboratories Std 1995 and listed by UL and UL, Canada
- Two-stage cooling capacity control
- Non-corrosive composite sloping design; side or center drain condensate pan. Meets ASHRAE Standard 62
- Standard cooling operating range from 40°F up to 115°F (4°C up to 46°C). Field installable accessory extends the minimum down to -20°F (-29°C).
- Convertible from vertical to horizontal airflow for slab mounting
- Two-inch disposable return air filters
- Thru-the-bottom power and gas entry capability
- Single point gas and electric connections
- 24-volt control circuit protected with resettable circuit breaker and 75-VA transformer
- Belt drive, constant torque, permanently lubricated evaporator-fan motor
- Totally enclosed condenser motors with permanently lubricated bearings
- Low-pressure and high-pressure switches
- Full perimeter base rail with built-in rigging adapters and fork truck slots
- Centralized Terminal Board for component and unit wiring connections

Cabinet

- Access panels with easy grip handles and NO-STRIP screw collar
- Pre-painted exterior panels and primer-coated interior panels tested to 500 hours salt spray protection
- Fully insulated cabinet
- Tool-less filter access door

Refrigerant System

- Acutrol™ refrigerant metering system
- Liquid line filter drier
- Scroll compressors with internal line-break overload protection
- Copper tube, aluminum fin evaporator coil
- NOVATION all aluminum condenser coil
- Removable gauge line plugs for reading refrigerant pressure with unit panels in place

Gas Heat

- IGC solid-state gas heat exchanger control for on-board diagnostics, anti-cycle protection, LED error code designation, burner control logic and energy saving indoor fan motor delay
- Gas efficiencies up to 82%
- Designed in accordance with ANSI Z21.47 (design and test standard for gas furnaces) and ANSI Z233.1 (National Fuel Gas code relating to appliance installation requirements)
- Induced draft combustion
- Redundant gas valve, with up to 2 stages of heating
- Flame roll-out safety protector
- Solid-state electronic direct spark ignition system

STANDARD FEATURES (cont.)

Standard Warranty

- 15-year gas heat exchanger - Stainless Steel
- 10-year gas heat exchanger - Aluminized
- 5-year compressor
- 3-year NOVATION condenser coil
- 1-year parts

580J*** (D,F)

SUBMITTAL DATA

Job Name _____
Architect _____
Engineer _____
Contractor _____
Unit Designation _____

PERFORMANCE DATA

Unit Operating Weight _____ lb

Cooling

Gross Total Capacity: _____ Btuh
at Condenser Air Temperature _____ °F
Gross Sensible Capacity: _____ Btuh
Compressor Power Input: _____ kW
Indoor Entering db _____ °F wb _____ °F
Airflow _____ External Static Pressure _____ in.wg
Indoor Fan Motor Size _____ Hp
Exhaust Fan Motor Size _____ Hp

Curb Weight _____ lb

Heating

Heating Capacity:
Stage 1 _____ Btuh
Stage 2 _____ Btuh
Heating Capacity Total _____ Btuh
Stage 1 _____ kW
Stage 2 _____ kW
Heating Capacity Total _____ kW

ELECTRICAL DATA

Power Supply to Unit _____ Volts _____ Phase _____ Hz
Minimum Circuit Amps _____ Maximum Overcurrent Protection _____

OPTIONS AND ACCESSORIES

FACTORY-INSTALLED OPTIONS (FIOPs)

- Open protocol RTU-MP controller communicates to LON, MODBUS, BACNET and Johnson N2 protocols.
- Through the base connectors for gas and electric conduit/piping
- Stainless steel gas heat exchanger (includes tubes, vestibule plate and collector box)
- Economizer with dry bulb sensing and barometric relief
- Economizer with enthalpy sensing and barometric relief
- 2 position motorized outdoor air damper
- Non-fused disconnect
- Powered 115-volt convenience outlet
- Non-powered 115-volt convenience outlet
- High static evaporator fan motor
- Return Air smoke detector
- Supply Air smoke detector
- CO₂ sensor
- Condenser hail guard - louvered style

OPTIONAL WARRANTIES

- Complete Unit Parts only up to 5 years
- Complete Unit Parts and Labor up to 5 years

Many other optional warranties are available.
See the *Commercial Start-Up and Optional Extended Warranty Price* price pages for further information.

FIELD INSTALLED ACCESSORIES

- Economi\$er™ IV-electromechanical, gear driven with Belimo actuator (2-10v DC signal) and controller
- Economi\$er™ 2-compatible with DDC controls; gear driven with Belimo actuator (4-20mA) signal and no controller
- Power exhaust
- Two-position motorized outdoor air damper
- Manual outdoor air damper 25%
- Manual outdoor air damper 50%
- Roofcurb - 14 inch (356mm) tall
- Roofcurb - 24 inch (610mm) tall
- Thru-the-bottom connections-electrical only
- Thru-the-bottom connections-electrical and gas
- Condenser hail guard - louvered style
- Flue shield
- Flue discharge deflector
- Liquid propane (LP) conversion kit
- High altitude conversion kit
- Phase monitor (loss of phase/phase reversal)
- Winter start kit, down to 25°F (-4°C)
- Low ambient head pressure controller, down to 0°F (-18°C)
- Low ambient head pressure controller, down to -20°F (-29°C)
- Time Guard II compressor anti-cycle protection

580J*** (D,F)

Economizer Sensors

- Single Dry bulb control
- Differential Dry bulb control
- Single enthalpy control
- Differential enthalpy control
- CO₂ - wall mounted
- CO₂ - duct mounted
- CO₂ - unit mounted

CERTIFIED DIMENSION 580J*08, 12D

580J*** (D,F)

NOTES:

1. DIMENSIONS ARE IN INCHES. DIMENSIONS IN () ARE IN MILLIMETERS.

2. CENTER OF GRAVITY

3. DIRECTION OF AIR FLOW

* FOR TWO STAGE COOLING MODELS WITH NOVATION CONDENSER COILS.

UNIT J K H

580J-08A	41 1/4 [1046]	33 [838]	15 7/8 [403]
580J-09A	49 3/8 [1253]	37 1/4 [946]	23 7/8 [609]
580J-12A	49 3/8 [1253]	37 1/4 [946]	15 7/8 [403]
580J-08B	41 1/4 [1048]	33 [838]	15 7/8 [403]
580J-12B	49 3/8 [1253]	37 1/4 [946]	15 7/8 [403]

CONNECTION SIZES

A	1 3/8"- Dia [35] FIELD POWER SUPPLY HOLE
B	2 11/2"- (64) DIA POWER SUPPLY KNOCKOUT
C	3 3/4"- (55) GAUGE ACCESS PLUG
D	7/8"- Dia (22) FIELD CONTROL WIRING HOLE
E	3 3/4"-14 NPT CONDENSATE DRAIN
F	3 3/4"-14 NPT GAS CONNECTION
G	2 "- Dia [51] POWER SUPPLY KNOCK-OUT

THRU THE BASE CHART FOR USE
CRIB APPROZAGI, 00401

CONDUTIVE SIZE	PIPE AND REED HOLE USE	REED HOLE SIZES (MM.)
1 1/2"- ACC.	7/8" (22-2)	7/8" (22-2)
1 1/4"- (002.004)	24V	1 3/4" (44.4)
1 1/4"- (004)	POWER	1 5/8" (41.3)
1 1/4"- (004)	PFT - GAS	1 5/8" (41.3)
1 1/4"- (004)	FOR * THRU THE BASSPAN FACTORY OPTION, FITTINGS FOR ONLY X, Y & Z ARE PROVIDED	
Z ***	FOR HEAT SIZE 12K BTU - A FIELD SUPPLIED 1 1/2" ADAPTER IS REQUIRED BETWEEN BASE PAN FITTING AND GAS VALVE.	
***	(002) PROVIDES 3 1/4" PFT THRU CURB FLANGE & FITTING.	

SEE THRU THE BASE CHART

FEAT CONDENSATE DRAIN OPENING IN BASSPAN

INDOOR BLOWER ACCESS

OPTIONAL FACTORY INSTALLED DISCONNECT

OPTIONAL FACTORY INSTALLED CONVENIENCE OUTLET

RIGHT

FRONT

TOP

BACK

LEFT

SUPERSEDES

REV

SHIFT	DATE	580J 08-12 SINGLE ZONE ELECTRICAL COOLING WITH GAS HEAT	580J 08-12 SINGLE ZONE ELECTRICAL COOLING WITH GAS HEAT
1 of 2	10/21/08	09-29-08	09-29-08
		48TN500939	48TN500939
		5	5

C08500

CERTIFIED DIMENSION 580J*08, 12D

UNITED P. O. BOX 4858 TECHNOLOGIES BRONX, NY CARRIER 13221										THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER'S ACCEPTANCE OF CONTRACT.							
UNIT	STD. UNIT	CORNER WEIGHT (A)	CORNER WEIGHT (B)	CORNER WEIGHT (C)	CORNER WEIGHT (D)	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z			
UNIT	WEIGHT	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.						
580J-08A	810	367	171	78	164	74	33	233	106	222	110	41	19.8 (11064)	33	7.8 (860)	20	1/8 (514)
580J-09A	910	413	193	88	181	82	260	118	216	125	41	31.8 (1051)	22	7.8 (581)	22	1/8 (581)	
580J-12A	165	438	207	94	204	93	275	125	219	127	42	31.8 (1076)	24	1/8 (613)	24	1/8 (613)	
580J-08D	860	390	153	69.3	147	66.6	273	124	284	129	42	31.4 (1088)	37	1/2 (954)	20	1/8 (512)	
580J-12D	940	426	196	88.9	190	86.2	271	123	279	127	42	1/2 (1067)	33	7.8 (862)	20	1/4 (513)	

CORNER A

CORNER B

CORNER C

CORNER D

TOP

SCALE 1:8

FRONT

SHEET 2 OF 2	DATE 10/21/08	SUPERSEDES 09 - 29 - 08	580J 08-112 SINGLE ZONE ELECTRICAL	580J 08-112 COOLING WITH GAS HEAT	48TM500989	REV 5.0
--------------	---------------	-------------------------	------------------------------------	-----------------------------------	------------	---------

C08501

580J* (D,F)**

580J*** (D,F)

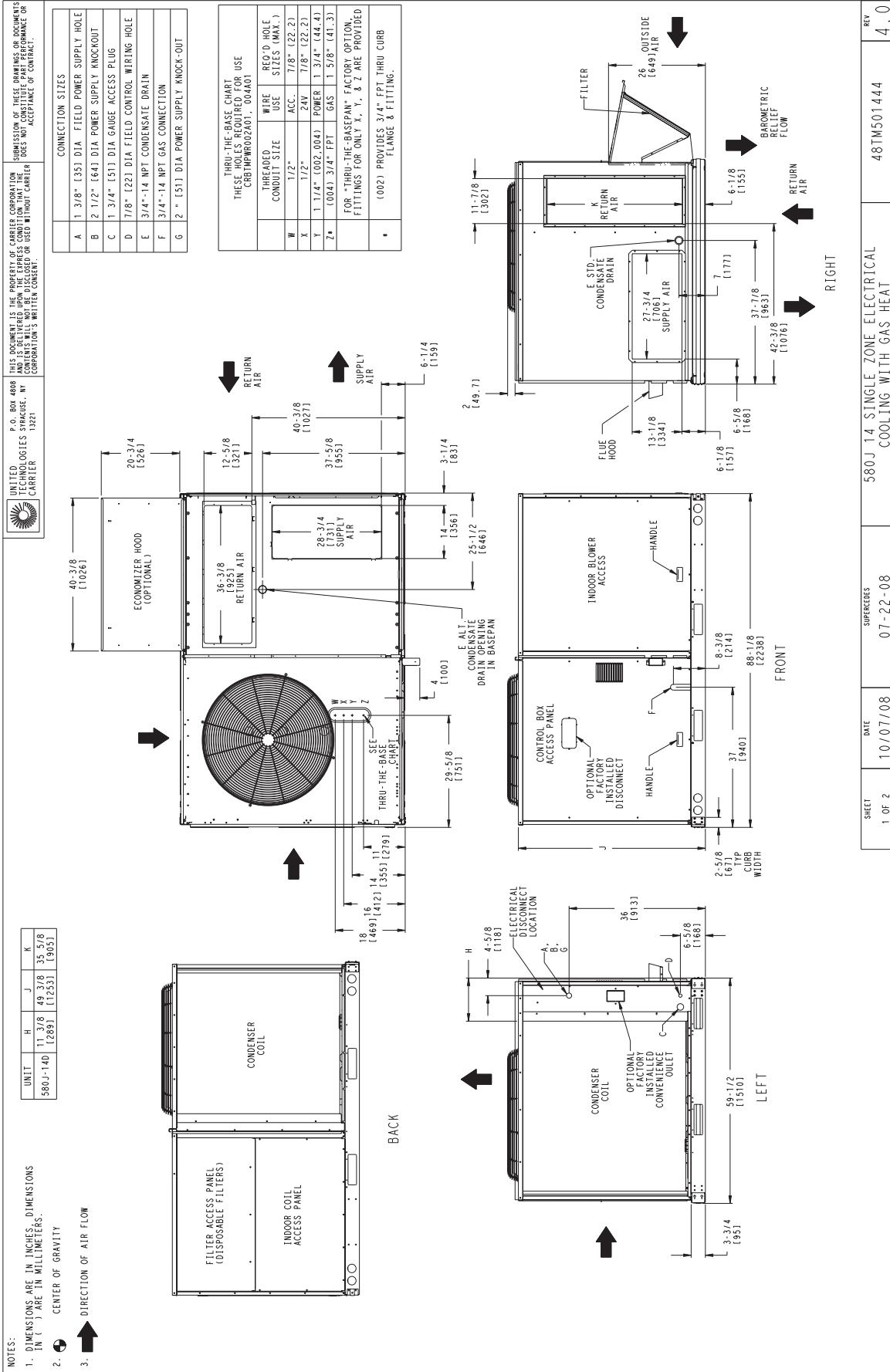
CERTIFIED DIMENSION 580J*14D

• 3510 •

DIMENSIONS ARE IN INCHES. DIMENSIONS
IN () ARE IN MILLIMETERS.

UNIT	H	J	K
580J-14D	11 3/8 [?89]	49 3/8 [1253]	35 5/8 [905]

● CENTER OF GRAVITY
↑ DIRECTION OF AIR FLOW



C08502

CERTIFIED DIMENSION 580J*14D

REF 40

UNITED CARRIER CORPORATION P.O. BOX 4608 100 TECHNOLOGIES ST. YONKERS, NY 10501 THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS TO BE KEPT SECURE. NO EXPRESS CONSENT IN WRITING WILL BE GRANTED THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT.										
UNIT	STD. UNIT	WEIGHT (A)	WEIGHT (B)	WEIGHT (C)	WEIGHT (D)	CORNER LBS.	CORNER LBS.	CORNER LBS.	C.G.	
580J-140	1116	506	297	135	157	71	229	104	434	197
										29 1/2 (749) 34 1/4 (870) 20 1/4 (514)

SHEET 2 OF 2 DATE 10/07/08 SURFACE 07-22-08

580J 14 SINGLE ZONE ELECTRICAL	580J 14 SINGLE ZONE ELECTRICAL	48TM501444
--------------------------------	--------------------------------	------------

C08503

580J*** (D,F)

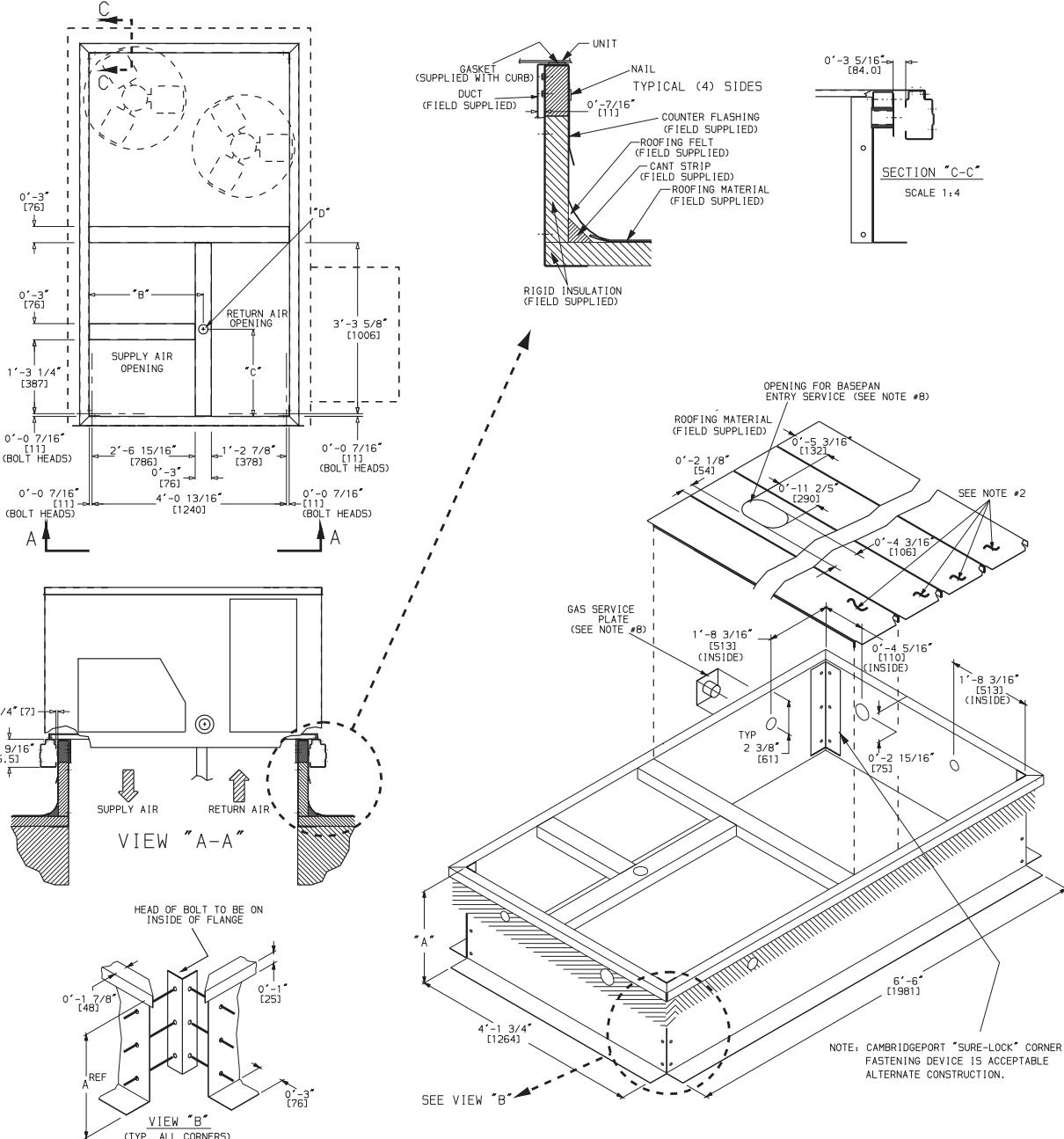
ROOF CURB DETAILS

ROOFCURB ACCESSORY	A	UNIT SIZE
CRRFCURB003A01	1' - 2" (356)	580J*08, 12, 14(D,F)
CRRFCURB004A01	2' - 0" (610)	

NOTES:

1. ROOFCURB ACCESSORY IS SHIPPED DISASSEMBLED.
2. INSULATED PANELS: 1" THK. POLYURETHANE FOAM, 1-3/4 # DENSITY.
3. DIMENSIONS IN [] ARE IN MILLIMETERS.
4. ROOFCURB: 16 GAGE STEEL.
5. ATTACH DUCTWORK TO CURB. (FLANGES OF DUCT REST ON CURB)
6. SERVICE CLEARANCE 4' ON EACH SIDE.
7. DIRECTION OF AIR FLOW.
8. CONNECTOR PACKAGES CRBTMPWR001A01 AND 2A01 ARE FOR THRU-THE-CURB GAS TYPE. PACKAGES CRBTMPWR003A01 AND 4A01 ARE FOR THE THRU-THE-BOTTOM TYPE GAS CONNECTIONS.

CONNECTOR PKG. ACC.	B	C	D ALT DRAIN HOLE	GAS	POWER	CONTROL	ACCESSORY PWR
CRBTMPWR001A01	2'-8 7/16" [827]	1'-10 15/16" [583]	1 3/4" [44.5]	3/4" [19]NPT	3/4" [19]NPT 1 1/4" [31.7]	1/2" [12.7]NPT	1/2" [12.7]NPT
CRBTMPWR002A01				1/2" [12.7]NPT	3/4" [19]NPT		
CRBTMPWR003A01				3/4" [19]NPT			
CRBTMPWR004A01				3/4" [19]NPT	1 1/4" [31.7]		



C08547